

Effector-mediated suppression of plant defences against biotrophs through activation of antagonistic defences against necrotrophs

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Plant hormones are small molecules involved in the regulation of plant growth, development, reproduction and stress responses. Salicylic acid (SA) and jasmonates (JA) are essential for the activation of defence responses against pathogens. SA signaling is involved in triggering immunity against biotrophic pathogens while JA activates resistance against necrotrophic pathogens. The SA and JA pathways are mostly antagonistic: elevated biotroph resistance correlates with increased necrotroph susceptibility, and *vice versa*.

Using transcriptomics to look for a functional overlap between plant gene silencing and type III-mediated plant responses we found that genes associated to JA signaling were overrepresented in the overlapping set, more so than SA-related genes. We present here the results of the ensuing analysis, showing effector-mediated activation of the JA pathway as a virulence mechanism, and establishing a novel role for gene silencing in the regulation of the JA pathway.